

The Status of the Claims

1. (Currently amended) A method to provide a handheld pointer-based user interface comprising:

encoding a first human-computer interaction (HCI) signal with a first code to correspond to a first HCI position event;

encoding a second HCI signal with a second code to correspond to a second HCI position event;

transmitting via a first communication link ~~one or more human-computer interaction (HCI) signals associated with an HCI event~~ the first HCI signal and the second HCI signal from a wireless pointer component to one or more base components that are operatively coupled to a screen of a display, ~~the HCI signals having different codes, wherein the first code and the second code differ to indicate a difference between a first time at which the first HCI position event occurred and a second time at which the second HCI position event occurred;~~

generating at least one of operating information and position information ~~of~~ associated with the wireless pointer component based on ~~the one or more~~ at least one of the first and second HCI signals; and

transmitting via a second communication link the at least one of operating information and position information from the one or more base components to a processor configured to generate screen information on the screen of the display.

2. (Currently amended) A method as defined in claim 1, wherein transmitting via the first communication link the ~~one or more HCI signals associated with the HCI event~~ first HCI signal and the second HCI signal from the wireless pointer component to the one or

more base components operatively coupled to the screen of the display comprises transmitting at least one of an ultrasonic signal and a radio frequency signal associated with at least one of the first HCI position event and the second HCI position event from the wireless pointer component to the one or more base components operatively coupled to the screen of the display via the first communication link.

3. (Currently amended) A method as defined in claim 1, ~~wherein transmitting via the first communication link the one or more HCI signals associated with the HCI event from the wireless pointer component to the one or more base components operatively coupled to the screen of the display comprises~~ further comprising transmitting the one or more HCI signals associated with at least one of writing, drawing, selecting, and scrolling directly on the screen of the display with the wireless pointer component by a user.

4. (Currently amended) A method as defined in claim 1, wherein ~~transmitting via the first communication link the one or more HCI signals associated with the HCI event from the wireless pointer component to the one or more base components operatively coupled to the screen of the display transmitting the one or more HCI signals associated with the HCI event from the wireless pointer component to the one or more base components operatively coupled to a~~ the screen of [[a]] of the display is associated with at least one of a desktop computer, a laptop computer, and a handheld computer.

5. (Currently amended) A method as defined in claim 1, wherein transmitting via the first communication link the ~~one or more HCI signals associated with the HCI event~~ first HCI signal and the second HCI signal from the wireless pointer component to the one or

more base components operatively coupled to the screen of the display comprises transmitting the ~~one or more HCI signals associated with the HCI event~~ first HCI signal and the second HCI signal from the wireless pointer component to the one or more base components in response to at least one of pressing a tip of the wireless pointer component on the screen of the display, and pressing a button of the wireless pointer component.

6. (Currently amended) A method as defined in claim 1, wherein transmitting via ~~[[a]] the second communication link~~ the at least one of operating information and position information from the one or more base components to ~~[[a]] the processor~~ configured to generate screen information on the screen of the display comprises transmitting the at least one of operating information and position information from the one or more base components to the processor via one or more communication links operating in accordance with at least one of an 802.11-based communication protocol, a Bluetooth-based communication protocol, and an infrared-based communication protocol.

7. (Currently amended) A method as defined in claim 1, further comprising converting the at least one of operating information and position information from a first format to a second format based on configuration information associated with at least one of the one or more base components and the screen of the display.

8. (Currently amended) A method as defined in claim 1, further comprising generating one or more coordinates of the wireless pointer component relative to the screen of the display based on the at least one of operating information and position information.

9. (Currently amended) A method as defined in claim 1, further comprising operatively coupling the one or more base components on one or more sides of the display to receive the ~~one or more HCI signals associated with the HCI event~~ first HCI signal and the second HCI signal.

10. (Currently amended) A machine readable medium storing instructions, which when executed, cause a machine to:

encode a first human-computer interaction (HCI) signal with a first code to correspond to a first HCI position event;

encode a second HCI signal with a second code to correspond to a second HCI position event;

transmit via a first communication link ~~one or more human-computer interaction (HCI) signals associated with an HCI event~~ the first HCI signal and the second HCI signal from a wireless pointer component to one or more base components that are operatively coupled to a screen of a display, ~~the HCI signals having different codes, wherein the first code and the second code differ to indicate a difference between a first time at which the first HCI position event occurred and a second time at which the second HCI position event occurred;~~

generate at least one of operating information and position information ~~of~~ associated with the wireless pointer component based on the one or more at least one of the first and second HCI signals; and

transmit via a second communication link the at least one of operating information and position information from the one or more base components to a processor configured to generate screen information on the screen of the display.

11. (Currently amended) A machine readable medium as defined in claim 10, wherein the instructions cause the machine to transmit via the first communication link the ~~one or more HCI signals associated with the HCI event~~ first HCI signal and the second HCI signal from the wireless pointer component to the one or more base components operatively coupled to the screen of the display by transmitting via the first communication link at least one of an ultrasonic signal and a radio frequency signal associated with at least one of the first HCI position event and the second HCI position event from the wireless pointer component to the one or more base components operatively coupled to the screen of the display.

12. (Currently amended) A machine readable medium as defined in claim 10, wherein the instructions, when executed, cause the machine to transmit via the first communication link the ~~one or more HCI signals associated with the HCI event~~ first HCI signal and the second HCI signal from the wireless pointer component to the one or more base components operatively coupled to the screen of the display by transmitting ~~the one or more HCI signals associated with at least one of writing, drawing, selecting, and scrolling directly on the screen of the display with the wireless pointer component by a user.~~

13. (Currently amended) A machine readable medium as defined in claim 10, wherein the instructions, when executed, cause the machine to transmit via the first communication link the ~~one or more HCI signals associated with the HCI event~~ first HCI signal and the second HCI signal from the wireless pointer component to the one or more base components operatively coupled to the screen of the display by transmitting the ~~one or~~

~~more HCI signals associated with the HCI event~~ first HCI signal and the second HCI signal
from the wireless pointer component to the one or more base components operatively coupled
to ~~[[a]]~~ the screen of ~~[[a]]~~ the display associated with at least one of a desktop computer, a
laptop computer, and a handheld computer.

14. (Currently amended) A machine readable medium as defined in claim 10,
wherein the instructions, when executed, cause the machine to transmit via the first
communication link the ~~one or more HCI signals associated with the HCI event~~ first HCI
signal and the second HCI signal from the wireless pointer component to the one or more
base components operatively coupled to the screen of the display by transmitting the ~~one or
more HCI signals associated with the HCI event~~ first HCI signal and the second HCI signal
from the wireless pointer component to the one or more base components in response to at
least one of pressing a tip of the wireless pointer component on the screen of the display, and
pressing a button of the wireless pointer component.

15. (Original) A machine readable medium as defined in claim 10, wherein the
instructions, when executed, cause the machine to convert the at least one of operating
information and position information from a first format to a second format based on
configuration information associated with at least one of the one or more base components
and the screen of the display.

16. (Original) A machine readable medium as defined in claim 10, wherein the
instructions, when executed, cause the machine to generate one or more coordinates of the

wireless pointer component relative to the screen of the display based on the at least one of operating information and position information.

17. (Currently amended) An apparatus to provide a handheld pointer-based user interface comprising:

a wireless pointer component configured to transmit via a first communication link ~~one or more human-computer interaction (HCI) signals associated with an HCI event, the HCI signals having different codes~~ a first human-computer interaction (HCI) signal and a second HCI signal, wherein the first HCI signal is to be encoded with a first code to correspond to a first HCI position event, wherein the second HCI signal is to be encoded with a second code to correspond to a second HCI position event; and

one or more base components operatively coupled to a screen of a display to receive via ~~[[a]]~~ the first communication link the one or more the first and second HCI signals from the wireless pointer component, the one or more base components being configured to generate at least one of operating information and position information of associated with the wireless pointer component based on the one or more first and second HCI signals, wherein the first code and the second code differ to indicate a difference between a first time at which the first HCI position event occurred and a second time at which the second HCI position event occurred; and

a processor configured to generate screen information on a screen of a display, wherein the processor is to receive to transmit via a second communication link the at least one of operating information and position information from the one or more base components to a processor configured to generate screen information on the screen of the display.

18. (Currently amended) An apparatus as defined in claim 17, wherein at least one of the first and second HCI position event events comprises at least one of writing, drawing, selecting, and scrolling directly on the screen of the display with the wireless pointer component by a user.

19. (Original) An apparatus as defined in claim 17, wherein the wireless pointer component comprises at least one of a stylus and an electronic pen.

20. (Currently amended) An apparatus as defined in claim 17, wherein the screen information comprises one or more coordinates calculated based on the at least one of operating information and position information ~~of the one or more HCI signals~~.

21. (Original) An apparatus as defined in claim 17, wherein the processor comprises at least one of a desktop computer, a laptop computer, and a handheld computer.

22. (Original) An apparatus as defined in claim 17, wherein the display comprises at least one of a cathode ray tube (CRT) display, a liquid crystal display (LCD), a light-emitting diode (LED) display, and a plasma display.

23. (Original) An apparatus as defined in claim 17, wherein the second communication link operates in accordance with at least one of a an 802.11-based communication protocol, a Bluetooth-based communication protocol, and an infrared-based communication protocol.

24. (Currently amended) A processor system to provide a handheld pointer-based user interface comprising:

a display having a screen configured to generate at least one of text and graphics;

a processor operatively coupled to the display to generate screen information on the screen of the display; and

a handheld pointer-based user interface device having a wireless pointer component configured to transmit via a first communication link one or more human-computer interaction (HCI) signals associated with one or more ~~[[an]]~~ HCI position event events, wherein the one or more HCI signals are encoded differently to indicate a difference in time of occurrence between the one or more HCI position events, and one or more base components operatively coupled to the screen of the display to receive via the first communication link the one or more HCI signals ~~having different codes~~ from the wireless pointer component and configured to generate at least one of operating information and position information ~~of~~ associated with the wireless pointer component based on the one or more HCI signals, and to transmit via a second communication link the at least one of operating information and position information from the one or more base components to the processor.

25. (Currently amended) A processor system as defined in claim 24, wherein the one or more HCI position event events comprises at least one of writing, drawing, selecting, and scrolling directly on the screen of the display with the wireless pointer component by a user.

26. (Original) A processor system as defined in claim 24, wherein the wireless pointer component comprises at least one of a stylus and an electronic pen.

27. (Currently amended) A processor system as defined in claim 24, wherein the screen information comprises one or more coordinates calculated based on the at least one of operating information and position information ~~of the one or more HCI signals.~~

28. (Original) A processor system as defined in claim 24, wherein the processor comprises at least one of a desktop computer, a laptop computer, and a handheld computer.

29. (Original) A processor system as defined in claim 24, wherein the display comprises at least one of a cathode ray tube (CRT) display, a liquid crystal display (LCD), a light-emitting diode (LED) display, and a plasma display.

30. (Original) A processor system as defined in claim 24, wherein the second communication link operates in accordance with at least one of an 802.11-based communication protocol, a Bluetooth-based communication protocol, and an infrared-based communication protocol.